Technical Sub-Group of the Imperial Valley Study Group

Base Case Development, Assumptions & Dispatch

Study Purpose

- Determine necessary transmission system upgrades, including:
  - new transmission lines, and
  - upgraded existing lines
- 2200 MW of renewables (mostly geothermal)
- Imperial Valley region of southern California
- Fully deliverable and dispatchable

Technical Working Group

Last	First	Representing
Barajas	David	Imperial Irrigation District
Etherton	Mark	KR Saline & Associates for IID
Evans	Mike	Coral Power LLC
Finley	Anne	Metropolitan Water District
Gonzalez	Alberto	Comision Federal de Electricidad
Jackson	Robert	San Diego Gas & Electric
Kokanos	Barrie	Arizona Public Service
Kritikson	James	Kritikson & Associates for Coral
Kyei	John	California Independent System Operator
Leung	Phillip	Southern California Edison
Miller	Jeff	California Independent System Operator
Olsen	Dave	Center for Energy Efficiency and Renewable Technologies
Stevens	Dale	Mid American - CalEnergy
York	Leonard	Western Area Power Authority - Desert Southwest

Study Scope/Schedule

- April 2005
  - Thermal
- June 2005
  - Stability
  - Post Transient (Voltage Support)
  - Short Circuit
  - Economic

Base Cases

- Study Year 2014
  - Nothing implicit about year
- Heavy Summer
  - 2014 Heavy Load
  - 2014 Topology
  - N-to-S flow in CA
- Light Autumn
  - Off peak case – 2014 Light Autumn
  - 2014 Topology
  - S-to-N flow in CA

Base Case Sources

- 2014 Heavy Summer
  - 2014 HS1A WECC Base Case
  - Approved 21 Sept 2004
- 2014 Light Autumn
  - 2008 LA1S WECC Base Case
  - Approval – any day now

Base Case Development

- CAISO
- IID
- SCE
- SDG&E
- WAPA DS
- CFE

Assumptions

- Palo Verde – Devers #2
- Path 49 EOR 8055 Upgrades
- Path 49 EOR 9300 Upgrades
- WAPA Pilot-Blythe 230 Upgrades
- Path 42 Upgrades
- SDG&E New 500 kV Line

Dispatch Scenarios

Utility	Dispatch Scenario	
	D1	D2
IID	200	200
SDG&E	1,000	200
SCE	400	300
LADWP	200	200
PG&E	400	600
WAPA	-	100
Arizona	-	500
NPC	-	100
	2,200	2,200